



Practical Tests Extending For Six Months Prove Theory of Inventors --- Highest Extraction Ever Obtained Is Claimed For It

Hawaiian mill engineers have invested many improvements in sugar machinery. One of the latest inventions which is arousing wide interest among sugar engineers is the Hind-Renton grooving for mill rolls. This has been given a thorough trial at Ewa Mill during the 1914 season.

Ninety-eight Extraction

F. E. Greenfield, formerly chemist at Ewa, has stated that "during fac fifteenth week of this campaign the upprecedented extraction of 98.05 percent of sucrose in case was obtained, a figure never before obtained by cane crushing plants in the history of the industry. He also said that "since that period an extraction of sucrose in case uniformly over 97.5 per cent has been obtained with high fibre content."

Rough Tractive Surfaces

In all sugar mills it is necessary that the surface of the feed roll so as to work as much came a possible. The more caue is carried through the rolls the greater the extraction of juice. Under all previous systems it has been considered necessary to use cast.

Mr. Greenfield states that, "The new grooving thus increases the amount of work done by each element of a larely will, thus making it a more efficient.

more cane is carried through the rolls the greater the extraction of juice.

Under all previous systems it has been considered percessary to use cast iron feed rolls because of the rough surface. The percentage of breakages of rolls has been very high in consequence. The rough surface of the cast iron rolls prevents slippage.

The Hind-Renton roll is of steel so grooved that the rough surface of the cane fibre impacted into the weige-shaped channels provides the gripping surface required.

Grooves Described

The top roll, in longitudinal section, shows knife edge cutting ridges "sinch thick, ground to a 40 degree face, and spaced % of an inch on centers. These shrell the cane as it passes through the mill. The bottom or feed roll has 30 degree comeal channels or

EXTRA DIVIDEND PASSED BY HAWAIIAN COMMERCIAL BOARD

The directors of the Hawaiian Com-

On leaving here this spring, Mr. Reering stated he would return shortly to superintendent the construction of his Waikiki home, and this state.

WAR SHUTS UP SIXTH OF WORLD'S

The conditious in the Havre coffee

will unsprouted seed, and it, therefore, rena so much less risk of attack by disease.

Publication is made at San Juan of the construction of another beautiful residence at Waikiki will begin within a month. This was announced yesterday with the arrival of C. W. C. Deering, who last year purchased the property of C. G. Boekus and Rev. William B. Westerveit.

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if the superintendent the construction of his Waikitel home, and this statement was confirmed yesterday on his arrival.

It is understood that he plans to spend a very large sum on his new residence, wishing to make it one of the most attractive homes at Waikist.

REMEMBER THE NAME.

Chanterlain's Colle, Cholera and Diarrhoe Remedy is the best kann medicine for diarrhoe, dynamicry, optic.

As a result sugar men throughout the rainy season shows signs of caming to make improved. The seven-months medicine for diarrhoe, dynamicry, optic. medicine for diarrhoe, dysentsry, colie, cramps or pains in the stomach. You island are preparing to plant as much an end. If there is dry weather again may need it some time. For sale by all acronge as possible for 1916. '—U. S. dealers. Benson, Smith & Co., Ltd., Gonsular Reports for September 3, agents for Hawaii.

Record and Forecast of Hawaiian Sugar Crops as of Uneven Dates to Sept. 15, 1914

There are forty-five sugar mills in Hawali. In addition thereto, there are seven independent cane planters whose cane is ground on shares, who do husiners on such a large scale that their share of sugar is listed separately. There are many hundred share planters on a smaller scale, whose sugar is handled by the mills and included in record of output.

Planters without fails are indicated hereunder by a ". Statistics are of tons of 2000 lbs. each. Number mills grinding 18; number mills through grinding 27.

NAME OF ILANTATION,	rop of 1918 in tons	or of 1914 estimate of June 1	sogn; shipped to Aug. 31.	estimate of crop yet to be shipped	rop of 1914 revised estimate of total crop as of Sept. 15
*Apokan Sugar Co., Ltd *Estate V. Knudsen	- VI UI I I / 7555P II	400	925		925
Ewa Plantation Co.	00 211	800 31,027	125,152	2,781	930 29,933
*Grave Parm Plantation	4,821	6,000	5,993	Farin.	5,993
Hawalian Agricultural Co	3,695	13,000	13,234	3,716	17,000
Hawailan Commercial & Sugar Co	50 310	54,000	16,218	282	56,500
Hawaiian Sugar Co	22,308	23,500	24.580	2 283	26 863
Hawaii Mill Co., Ltd	2,857	2,600	3,398	200	3,601
Hamakun Mill Co	1 641	2,000	5,716	1,784	7,500
Finkalan Finalation Co	1 15 400	15,500		*11111	16,500
Hill Shgar Co	14,031	14,000			18,500
Pacific Sugar Will	10,103	8,000	12,036	2,264	7,800
Hawi Mill & Plantation. Honomu Sugar Co. Hutchinson Sugar Plantation Co	6,469	-6,000	6,072	148	6.200
Honomu Sugar Co	7,071	7,400	8,201	230	8,531
Honolulu Plantation Co	5,510	5,750	10.51		6,750
Kilages Sugar Plantation Co	5,451	5,700		1	6,250
Kipahulu Sugar Co	1,408	2.000	9.111	15	2,126
Karleky Plantation Co., Ltd Kahuku Plantation Co	4,938		4,105		6,217
Kolen Sugar Co	5.886	6,500	8,161	1,326	8,193
Kekaha Sugar Co., Ltd	14 008	2.500	15,518	982	16,500
Kona Development Co., Ltd	5,675		4,358	842	5,200
Kniwiki Sugar Co., Ltd	5.145		3,471	1,129	7,000
"Rukajau Plantation Co	3.463		3,151	74	3,225
*Roolan Agricultural Co., Ltd Laupahoehoe Sugar Co	400		1,137		1,137
Lama Plantation Co. Ltd.	19 519		8,514	2,679	21,193
Likue Plantation Co., Ltd	977	1,000	1,319	296	1,615
Makee Sugar Co	7.413		8,916		
Mani Agricultural Co	14.500	1. The Pt. 1955	33,503 14,084	2.286	33,660
Ninlii Mill & Plantation	2.803		1,139	1,361	2,500
Cahu Shgar Co. Lid.	28.142	29,000	31,891	1,584	33,475
Olan Sugar Co., Ltd	1.738	23,300	22,512	1,888	24,400
Onomea Sugar Co	16,884	15,941	18,228	1,371	19,599
Pauthau Sugar Plantation Co	9,958	10,000	****	****	11,000
Pioneer Mill Co., Ltd	27,804		9,302	1,082	28,301
Pepeekee Sugar Co	839	850	460	512 - 540	1,000
Union Mill Co	1,769	4,000	2,568	1,492	4,000
Wainken Mill Co	12,073	13,000	13,472	1,528	15,000
Wallaku Sugar Co	29.751	15,500 29,000	15,846	3,376	30,213
Wajanae Co.	5.226	5,000	3,000	1,500	4.500
Walmanalo Sugar Co	4,287	5,300			5,500
Waimen Sugar Co., Ltd	1,610	1,600	1,894	dest	1.894
ANTENNA MOLET MONTH	OT FO		1.750	1	-

NOTES

Finished grinding Aug. 25. Finished grinding Aug. 25, tAdd for local consumption 1990 tons. Finished grinding Aug. 29. Finished grinding July 18. Weather favorable for fluming; grind-

ing 100 tons per day. Finished grinding June 18. Finished grinding Aug. 20. Finished grinding Ang. 14.

Cane from Pacific Mill ground at Ho-

Finished grinding July 23. Weather favorable for all crops. Finished grinding

Finished grinding June 33. Finished grinding July 22. Finished grinding July 29.

Finished grinding June 10.

Finished grinding July 29. Finished grinding. Finished grinding July 25.

Finished grinding July 15. Finished grinding. Finished grinding June 23. Finished grinding August 8.

Finished grinding Sept. 4.

Finished grinding Aug. 20. Finished grinding Jone 20. Finished grinding July 16. Temporarily shut down.

Finished grinding. Finished grinding. Drouth condition prevailing.

Finished grinding Aug. 28. Estimated Total, 617,064 tons.

MILLION DOLLAR CONTRACT FOR IRON WORKS COMES FROM CUBA

feated in his ous for nomination as a candidate for the bouse of representa-tives on the Republican ticket in Sat-urday's primary election on East Ha-wall. Writing to a friend in Honolulu placed on the calendar of the supreme court, as follows: J. M. Camara, as ministrator of the cetate of Carolina Plubeiro, deceased, against the S. for the sugar estates on Hawaii.

Miss Adele Wicke, stenographer with the department of public works, respending two weeks on a cacation in Hauula, this island.

TO CUHE A COLD IN ONE DAY

Take Laxative Bromo Quinine Tablets. All druggists refund the money if it fails to cure. E. W. Grove's signature is on

PARIS PET ICINE CO., St Louis U & &

Edward K. Bull and Sister Have Hard Time Getting Out of Austria

Edward K. Ball, manager of the

Austria, because, as I say, I wasn't there long edough to know. I left Europe four seeks ago.

Mr. Hull sailed from here May 6, go

ing direct to Europe. hie said he spent most of his time in Austria, Germany, Norway and Sweden.
Soon after arriving yesterday, he went to the Oshu Plantation, where he

resumes his position as manager. P. C. JONES RETURNS FROM BOSTON VISIT

P. C. Junes, one of the foremost citi-zens of the Territory, arrived by the Mutson steamer Matsonia yesterday morning from San Francisco, after two months' absence from Honolulu. The main purpose Mr. Jones had in view in leaving here was to visit his birthplace in Boston, which he had not seen for a score or more years. He spent a mouth in and around Boston, seeing again the places which had fixed themselves on his memory

from his experiences as a youth there.

Source of Supply For American Refiners - Cane Culture Area Growing

(Consul Ceneral William White Hendley, Callao)

The cultivation of caue and the man ufacture of sugar and its by products hains. ufacture of sugar and its by products continue to be the chief rural industries of Pern. Owing to the low prices received in comparison with those of the preceding year, 1913 was not favorable for these pursuits.

Quotations at Liverpool for Perneian granulated sugar, of 96 per cent polarization, per English hundredweight of 112 pounds, fluctuated during 1913 from 9s. 10d. (\$2.29) to list. 6d. (\$2.80), the highest price reached in 1912 being 16s. 9d. (\$4.08). Exports to the United States dropped from to the United States dropped from 362.671 tons in 1912 to 250,082 tons during 1913.

New Land and Buildings

Throughout the last eighteen months considerable activity in been munifested in the industry, attested by the creetion of new buildings and the improvements of equipment of old factories, and it is estimated that 37,000 acres of the land are under cultivation.

The centers of production today are the circle calleges that dot the 1400 mile.

the rich valleys that dot the 1400 mile coast line, although cane can be grown in the fronjenl and semi-tropical sections throughout the country, especially in the large interior valleys.

The straighter of 1911 show that 63 plantations were listed, the product of which were sent to 32 mills; in 1912; 81 plantations were listed and

In 1911, 86,880 acres wert under cultivation, this figure including both the eans and pasture lands of the cleatations; in 1912 the grow under care was 91,750 acres, and pasture land comprised 23,325 acres.

The production of sugar and "chancaca" (raw sugar) amounted in 1911 to 178,533 metric tens: in 1912 to 192,754 tens. During the five year-from 1908 to 1912 the exports of Persylen rugar to foreign countries were valued at \$31,700,347.

Altohol Manufactured

354 gallons). In 1912 the number of men

the preceding year.

The demestic consumption of sugar and "chancaca" during 1912 is

FOR TEN YEARS

Were Raw All Over and the Humor was Spreading to Body and Limbs
— Professional Treatment did No Good-Daughter had Eczema, Too.

CUTICURA A SUCCESS IN BOTH THESE CASES

"I had ecsema on my hands for ten years. At first it would break out only in winter. Then it finally came to stay. I had three good doctors to do all they could hut none of them did any good. I then used one box of Cuticura Dinsment and three bottles of Cuticura Resolvent and was completely cured. My hands were raw all over inside and out, and the ecsema was spreading all over my body and limbs. Before I had used one bottle of Cuticura Resolvent, together with the Cuticura Gintment, my sores were nearly licaled over, and by the time I had used the third bettle, I was entirely well. I had a good appetite and was fleshier than I ever was. To any one who has any skin es blood disease I would benestly addisathem to fool with nothing cise, but to get Cuticura and get well. My hands, oursed by the use of Cuticura, have never given me the least bit of trouble hy to now. I cannot recommend Cuticura highly enough, it has done me and my family so much pood. My daughter's hands this summer became perfectly raw with eczema. She cuid de to nothing that would do them any good until she tried Cuticura. She nead two bottles of Cuticura Resolvent and one box of Guticura Olntment and in two weeks they were entirely cured. I have used Cuticura for other members of my family and it always proved successful. I recommend it to any one with eczema. After once using if you will never use anything else. Mrs. M. E. Falin, Speen Ferry, Va., Oet. 10, 1909."

KEEPING THE HAIR

To prevent dry, thin and falling hair; remove dandruff, allay itching and irritation, and promote the growth and beauty of the hair, frequent champeon with Cutioura Scap and occasional dressings with Cutioura are usually effective when all other methods fall. Special and full directions accompany each package of Cuticura.

Cutters Sua (25c.) Chameat (25c.), Resolvent (5c.), and Chorolate Contest Puls (25c.), are tool throughout the world. Fotter Drug & Chem. Corp., Sole Props. 137 Columbes Ave., Econom.

NEW CRYSTALLIZERS

Twenty-six large crystallizers are being installed at Ewa mill, Ewa Is probably the only large plantation in Hawaii that has depended on molastes tanks for the final crystallization or its residual sugars. The change is being made by the management because of the large surplus of molastes that has accumulated since new varieties have been substituted for Large ties have been substituted for

One more vessel was added to the German fleet of merchantmen that have sought refuge in this port, with the arrival of the steamer Staatsschretar Kraeteke of the Hamburg-American line yesterday afternoon.

Captain Chlueter, commander of the vessel, gives Jaluit, Marshall Islands, as his last port of call.

From information gathered by harbor officials it is the belief in shipping circles that the German Pacific fleet has made a rendevous of the Marshall Islands and that the German warships in the Pacific have been getting their

in the Pacific have been getting their supply of coal at this point. Captain Chlueter admitted yesterday Sugar Plantation Statistics

The increasing importance and the molvancement of the industry during 1911 and 1912 are made apparent by the following figures:

The increasing importance and the was transhipped to a war vessel at som. Which one of the German fleet it was the refused to divulge. It is presumed, however, that it was the cruiser Nurn-

In China Coasting Trade

In China Coasting Trade

The Stantaskretar Kraeteke has
been engaged in the China coasting
trade, plying between Tsingtau and
other Chinese coast ports. She left
Tsingtau on August 2, with rush or
der to proceed to the German port
of Jaluit.

At that port, it is reported, the German government has 25,000 tons of
coal stored.

The Stantasckretar Kraeteke is 273
feet in length and has a beam of forty-

feet in length and has a beam of forty-three feet. Her set tonnage is 1208. She was built in Kiel a year ago and carries a crew of seven German offi-cers and forty-nine Chinece.

Alcohol and rum from sugar came stated to have been 36,705 metric distilled in 1911 amounted to 7,763,805 tons. In 1912 the quantity of sugar liters (2,050,968 callons); in 1912 the and "chancaca" expected was 147,410 uting (2,050,568 gallons); in 1912 tac tons, an increase of 23,720 tons of the tons of the

and New Equipment for Sugar Pactories In 1912 the number of men and women employed in the sugar estates was 19.945 in comparison with 16,977 the preceding year.

The domestic consumption of sugar and "chancaca" during 1912 is litious, completed or still in the course of construction:

On the Casa Grande plantation, the construction of the casa Grande plantation, the casa Grande plantation and the casa Grande plantation

of construction:
On the Cam Grande plantation, (bleams Valley, Department of La Libertad, a complete new sugar factory is being installed, capable of hundling 3500 tons of cane in 24 hours. This installation is expected to be completed the latter part of 1914.
Of the Cartavio plantation, in the same valley, a plant is being installed with a 14-roller mill, capable of grinding 1000 tone in 24 hours. This machinery was manufactured by Mirriess, Watson & Co., Glasgow and is electrically driven. The equipment includes two Corliss engines and a sulphur apparatus for manufacturing white sugar. Another complete factory is being installed, with a 17-roller mill, on the Laredo plantation, Valley of Sants Catalian. Its machinery was manufactured by John McNeil & Co., Glasgow, and the hollerhouse plant by Freres Lile, Paris.
On the Roma plantation, is the Chirama Valley, a grushing plant capable of treating 1000 tons of cane a dwy has been put up, and on the Cayalti plantation, Valley of Zana, an Heroller mill plant that can treat 750 tons a day has been creeted, and a bollerhouse is now in course of construction.

Cost of Sugar Production in Peru As an indiration of the future possi-bilities of the industry in Peru, it is worthy of note that it is claimed that with up to date equipment sugar can be produced here at a cost of #21 a ton, and many plantations are produc

Derend for Second Hand Machinery
There might possibly he found in
Peru a market for second-hand sugar
machinery of a modern type. Owners
of United States sugar mills installed of Ugited States sugar mills installed with reodern machinery, who satisficate dismarting their plants with a view of disposing of them at a bargain price, should procure from the Bureau of Foreign and Domestic Commerce, Washington, a list of the principal super plantations of Peru furnished by this office, and take up the matter direct with the owners of the plantations of this country. There is no Peruvian dury on imported sugar machinery.

The interiors of many of the Penyvian sugar factories, from a scommercial point of view, are a curious combination of the succent and the madern. In some instances sweeping al-

ern. In some that asees sweeping attentions and improvements have been effected. On the other hand, antiquated methods are still employed to many places, and the waste that is daily necessing in some of the off-fashioned factories would be considered a handsome profit in less favored

countries. U. S. Consular Reports for Sept. 2,